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United States Department of the Interior
Bureau of Land Management

Glasgow Field Station

February 2000

BITTER CREEK AND MOUNTAIN PLOVER AREAS OF CRITICAL ENVIRONMENTAL CONCERN PLAN AMENDMENT AND ENVIRONMENTAL ASSESSMENT

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2000-012218/NF

The Bureau of Land Management is responsible for the stewardship of our public lands. It is committed to manage, protect, and improve these lands in a manner to serve the needs of the American people for all times. Management is based on the principles of multiple use and sustained yield of our nation's resources within a framework of environmental responsibility and scientific technology. These resources include recreation; rangelands; timber; minerals; watershed; fish and wildlife; wilderness; air; and scenic, scientific, and cultural values.

BLM/MT/PL-00/005+1110

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Glasgow Field Station
RR 1 - 4775
Glasgow, Montana 59230

February 2000

Dear Interested Party:

Attached for your review and comment is a plan amendment and environmental assessment for two potential areas of critical environmental concern (ACECs) in the Glasgow Field Station, Valley County, Montana. These areas are called Bitter Creek and Mountain Plover. This plan, if approved, would amend the Judith-Valley-Phillips Resource Management Plan.

You are encouraged to comment on BLM's management recommendations for each proposed ACEC, alternatives, and environmental impacts. Specific comments will be most useful. A 60-day comment period will begin with the filing of the notice of availability of this document in the *Federal Register*. Written comments should be addressed to Richard M. Hotaling, Field Manager, Glasgow Field Station, RR 1 - 4775, Glasgow, MT 59230. Please include your name and complete mailing address on all written comments.

The BLM will consider your comments when preparing a proposed plan amendment and environmental assessment. The public will have another opportunity to participate in the planning process, during a 30-day protest period on the proposed plan amendment and environmental assessment.

This document is available on disk as an alternative format, WordPerfect (series 6.0) for people with visual impairments. Call (406-228-4316) for more information.

Thank you for your participation in this planning effort.

Sincerely,

Richard M. Hotaling

Richard M. Hotaling
Field Manager

Bitter Creek and Mountain Plover Areas of Critical Environmental Concern

Resource Management Plan Amendment
and
Environmental Assessment

MT-096-99-04

prepared by

United States Department of the Interior
Bureau of Land Management
Glasgow Field Station
Glasgow, Montana

February 2000

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CHAPTER 1
PURPOSE AND NEED

INTRODUCTION

This plan amendment and environmental assessment (EA) addresses special management for two potential Areas of Critical Environmental Concern (ACEC): Bitter Creek and Mountain Plover. The public land being considered is located in Valley County, Montana. This plan would amend the Judith-Valley-Phillips Resource Management Plan (RMP).

An ACEC is an area where special management attention is required to protect important historic, cultural or scenic values, fish and wildlife resources or other natural systems, or to protect life and safety from natural hazards.

The Bitter Creek Wilderness Study Area (WSA) (59,660 acres) was found to meet the criteria as a potential ACEC due to the scenic diversity and variety of vegetation types and wildlife habitat. The Mountain Plover area (24,730 acres) provides natural habitat for the mountain plover, a prairie bird. It is an area of native plover habitat which is not associated with black-tailed prairie dogs.

LOCATION OF THE PLANNING AREA

The Bitter Creek WSA, covering about 59,660 acres, is located in north Valley County, approximately 25 miles northwest of Glasgow, and 18 miles south of the Canadian border (see Figure 1).

The Mountain Plover area, covering about 24,730 acres, is located in south Valley County. The area includes the hardpan areas of the drainage ways in the Little Beaver Creek area (see Figure 1).

NEED FOR THE PLAN AMENDMENT

Bitter Creek

In November 1990, the Bureau of Land Management (BLM) received the Mixed-Grass Prairie ACEC nomination from several organizations in Montana. The nomination encompasses approximately 350,000 acres of public land in north Valley County. This area was nominated for its natural integrity, scenic values, vegetation and on the basis that it is one of the largest and most intact sections of prairie remaining in the United States and coupled with the Canadian Grasslands National Park, would provide an intact prairie corridor between the United States and Canada. (Montana Audubon Council, Sierra Club, Montana Wilderness Association, Montana Wildlands Coalition, National Wildlife Federation, Montana Wildlife Federation, The Wilderness Society, and Montana Chapter of the Sierra Club, 1990.)

In March 1998, the BLM completed an evaluation of this nomination to determine if it met both the relevance and importance criteria for consideration as a potential ACEC (see Appendix A). In summary, the entire nomination was found to be relevant in terms of the scenic, cultural, and wildlife resources. In addition, two areas of approximately 100,000 acres in size were found relevant from a natural process or systems perspective. However, only the Bitter Creek WSA (59,660 acres) was found to meet the importance criteria due to the scenic diversity and variety of vegetation types and wildlife habitat. The Bitter Creek WSA does qualify for further consideration as an ACEC.

Mountain Plover

In April 1989, the BLM received the Mountain Plover ACEC nomination from an individual. The area was nominated for the concentration of mountain plovers found off of prairie dog towns. In many areas, mountain plovers are found closely associated with black-tailed prairie dog towns.

In 1992, the BLM evaluated the Mountain Plover nomination and recommended the area for further consideration as an ACEC (BLM, 1992). The mountain plover is an unusual shorebird since it spends its entire life away from water. It is a bird of open flat land, avoids mountains, and seeks areas of low precipitation. Mountain plovers feed primarily on insects and can thrive without drinking free-standing water. Mountain plovers are very selective in choosing nest sites, preferring expansive, arid flats (under 5% slope) with very short vegetation (under 4 inches), and a high proportion of bare ground (a minimum of 30%).

For this ACEC nomination the BLM will examine the measures that maintain nesting areas and ways to enhance the suitable remaining habitat. Potential limiting factors are adverse weather conditions, predation, human disturbances, and chemical spraying.

Special Management

Before either of these areas can be designated ACECs, the BLM must determine if they require special management. Alternatives for special management are considered through the plan amendment process.

PLANNING ISSUES AND CRITERIA

The following issues and planning criteria will be used to formulate alternatives and guide selecting the preferred alternative.

Bitter Creek

Vehicle Travel: Off-highway vehicle (OHV) travel has the potential to accelerate erosion and spread noxious weeds along with compromising the semi-primitive non-motorized area. Special management could address the long term need for a limited OHV designation.

Energy Mineral Resources: There is a moderate potential for oil or gas development. Oil and gas activities within this area may change the character of a semi-primitive non-motorized area and adversely affect the scenic quality. Special management could address the long term decision for oil and gas leasing.

Non-energy Mineral Resources: There is a low potential for non-energy mineral development. However, non-energy mineral resource development, such as bentonite mining, may detract from the scenic resource and impact the semi-primitive non-motorized area.

Land Treatments: Land treatments can be effective tools to enhance the native plant communities. Burning is favored over mechanical treatments as a natural method to improve ecological conditions. Mechanical treatments could impact the scenic values of the area.

Vegetation Management: Grazing occurs throughout the area. Grazing activities that existed prior to October 1976 (the passage of FLPMA) are grandfathered into the management of this area. This means existing management of ranching operations during 1976 are in effect today provided they are accomplished in the same manner and degree in order to provide for a healthy ecosystem. Special management in this area could include continuing the promotion of the natural processes within this ecosystem.

Noxious Plants: To retain the naturalness of this area, noxious plants are managed by using the minimal impact tool to control the spread of noxious weeds, which consists of integrated pest management efforts.

Riparian and Wetland Management of Watersheds: Bitter Creek WSA is within the Willow North watershed. An assessment of riparian, wetland, and upland habitat conditions is planned for completion in 1999. Most streams and uplands in the WSA are meeting standards. The Willow North watershed plan will include recommendations for changes in grazing management to meet the standards. Range improvements constructed to meet healthy rangelands standards could impact scenic values. Special management could monitor the health of the streams to assure they are functioning units within the ecosystem.

Mountain Plover

Vehicle Travel: Off-highway vehicle (OHV) travel may disturb nesting birds and/or destroy nests and chicks. Special management could include off-road restrictions and/or slower speeds on existing roads.

Energy Mineral Resources: There is a moderate potential for oil or gas development. Oil and gas activities within occupied nesting habitat for mountain plovers may disturb nesting birds and chicks. Special management could include timing stipulations during drilling and production activities.

Non-energy Mineral Resources: Non-energy mineral resource development, such as bentonite mining, may disturb nests and chicks. Special management could include mitigation such as timing restrictions and road placement or closing the area to locating and/or leasing.

Land Treatments: Land treatments such as chisel plowing would increase vegetation but would decrease habitat for the mountain plover. Special management could include prohibiting any land treatments.

Vegetation Management: Mountain plovers show a preference for low growing vegetation. Grazing by cattle, sheep, black-tailed prairie dogs, and Richardson ground squirrels was important in maintaining the short vegetative height. Livestock are not required to be present for a grazed site to be used by mountain plovers. Past grazing (primarily during winter and spring) seemed to create conditions sought out by mountain plovers. Nuttall's saltbush and wild buckwheat appeared to be naturally dwarf in stature. The availability of bare ground may also be important to mountain plovers.

Riparian and Wetland Management of Watersheds: Little Beaver Creek is the main stream in the nominated area. It is classified as functional-at risk with a static trend. Grazing management to improve riparian conditions must consider effects on plover habitat.

RELATIONSHIP TO STATUTES, REGULATIONS, OR OTHER PLANS

The BLM planning regulations require that resource management plans be "consistent with officially approved or adopted resource related plans of other federal agencies, state, and local governments, and Indian tribes, so long as the guidance and resource management plans are also consistent with the purposes, policies, and programs of federal law, and regulations applicable to public lands..." (43 CFR 1610.3a). The BLM will review this plan for consistency with other federal, state and local government or Native American planning efforts. The BLM will also rely on other entities to review this document for inconsistencies with their plans.

The Department of the Interior, Fish and Wildlife Service (Service) is proposing to list the mountain plover as a threatened species pursuant to the Endangered Species Act of 1973. The proposed rule is in the Federal Register dated February 16, 1999: Volume 64, Number 30 pages 7587-7601. According to the Service, the current population estimate is between 8,000 and 10,000 birds. Conversion of grassland habitat, agricultural practices, management of domestic livestock, and decline of native herbivores are factors that likely have contributed to the mountain plover's decline.

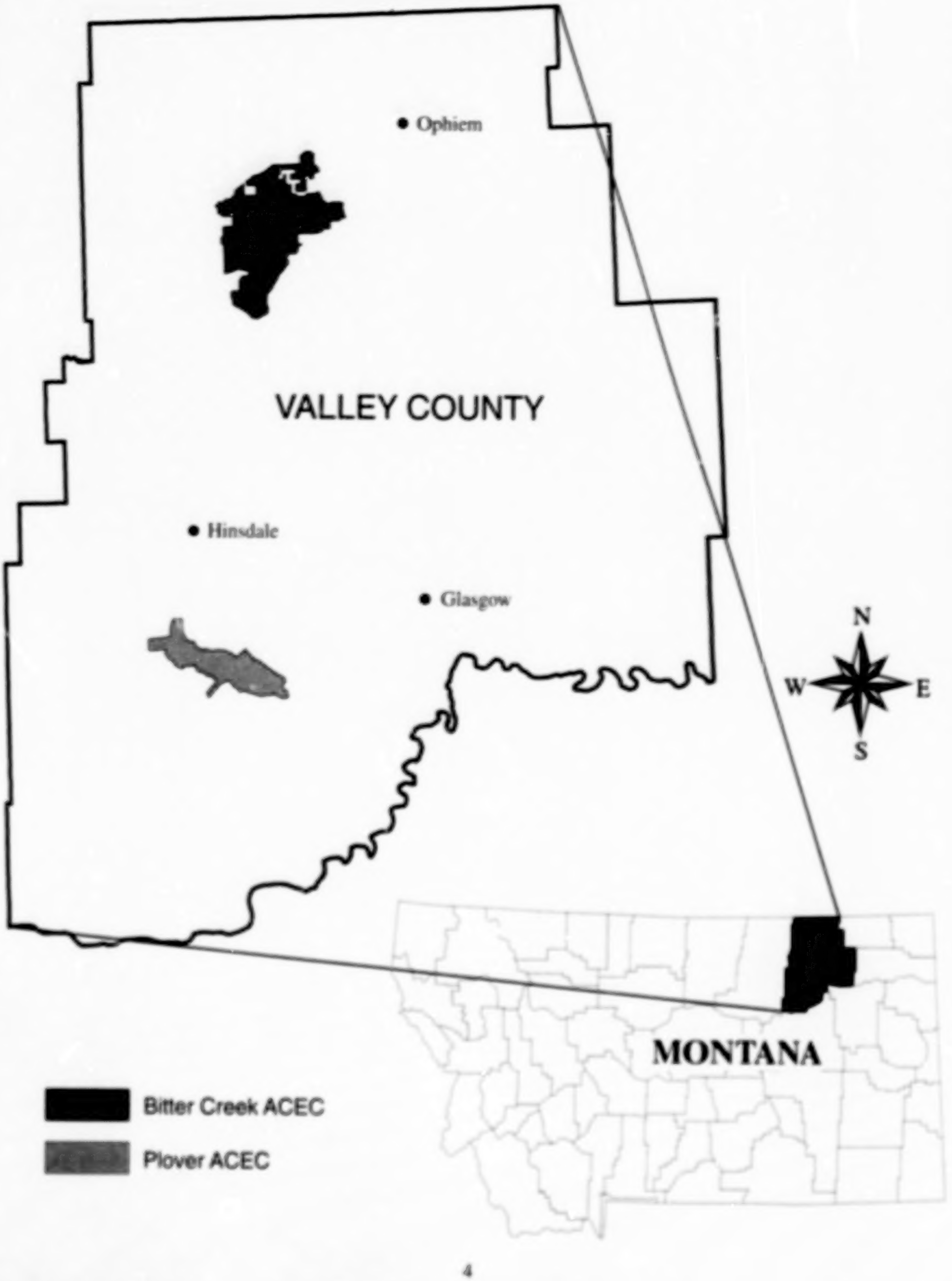
The designation of critical habitat was determined not prudent by the Service, therefore specific areas within the geographical area occupied by Mountain Plovers would not be designated under the listing.

Mountain plovers' breeding habitat in Montana is usually characterized by grasslands and shrublands. Most breeding sites are grazed by domestic livestock or prairie dogs and the largest number of breeding mountain plovers in Montana is found on and around a large complex of black-tailed prairie dog towns in Phillips and Blaine counties. Plovers are also found on non-prairie dog habitat in Valley, and in Wheatland, Golden Valley, Big Horn, Broadwater, Carbon, Carter, Fergus, Jefferson, Hill, Madison, Musselshell, Petroleum, Rosebud, Toole, Treasure and Teton Counties. The Montana population is estimated at 2,000 birds for Phillips and Blaine Counties and 800 individuals for the rest of Montana.

Conservation measures provided to a species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and leads to the implementation of conservation actions by Federal, State, County, and private agencies, groups, and individuals. The Act provides for possible land acquisition and cooperation with the States, and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened, and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Endangered Species Act are codified at 50 CFR part 402. Section 7(a)(4) of the Act requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(1) provides that all Federal agencies shall utilize their authorities in furtherance of the purpose of the Act by carrying out programs for the conservation of species listed pursuant to the Act. Further, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service. Consequently, Federal listing will cause all Federal agencies to consider mountain plover conservation needs during their review of activities they may fund, authorize, or carry out.

Figure 1
Location Map



CHAPTER 2
ALTERNATIVES

INTRODUCTION

This chapter presents alternatives for the Bitter Creek and Mountain Plover potential Areas of Critical Environmental Concern (ACEC). Two alternatives are analyzed in detail for each potential ACEC. Alternative A, the no action alternative, would continue current management. If selected, there would be no amendment to the Judith-Valley-Phillips Resource Management Plan (RMP) or designation of any ACECs. Alternative B would provide special management and designate the areas as ACECs. Designation of an ACEC only applies to public land administered by the Bureau of Land Management (BLM).

MANAGEMENT COMMON TO ALL ALTERNATIVES

Bitter Creek

Since this area is a wilderness study area (WSA), management is guided by the Interim Management Policy for Lands Under Wilderness Review (IMP). Congress will ultimately decide which areas are added to the national wilderness system. Until such time as Congress decides, Bitter Creek will continue to be managed under the IMP.

Section 202 and 603 (c) of the Federal Land Policy Management Act (FLPMA) are the parameters for over-all management of the WSA which includes the "non-impairment" mandate. (IMP Handbook)

The non-impairment criteria are:

The use, facility, or activity must be temporary. This means a temporary use that does not create surface disturbance or involve permanent placement of facilities may be allowed if such use can easily and immediately be terminated upon wilderness designation.

When the use, activity, or facility is terminated, the wilderness values must not have been degraded so far as to significantly constrain the Congress's prerogative regarding the area's suitability for preservation as wilderness.

The BLM's management policy is to continue resource uses on lands under wilderness review in a manner that maintains the area's suitability for preservation as wilderness.

If this area is not designated as wilderness by Congress, it will subsequently be managed in accordance with guidance for adjacent BLM land unless otherwise specified under this plan amendment.

Mountain Plover

The Montana/Dakotas Standards for Rangeland Health and Guidelines for Livestock Grazing Management would apply to all alternatives (BLM, 1997). Standards are statements of physical and biological conditions or degree of function required for healthy sustainable rangelands. Achieving or making significant and measurable progress towards these functions and conditions is required of all uses of public rangelands. Historical data, when available, should be used when assessing progress towards these standards. The Lewistown District Standards and Guidelines apply in this area.

"Lewistown STANDARD #5: Habitats are provided to maintain healthy, productive and diverse populations of native plant and animal species, including special status species (federally threatened, endangered, candidate or Montana species of special concern as defined in BLM Manual 6840, Special Status Species Management)." Management for indigenous vegetation and animals is a priority. The environment contains components necessary to support viable populations of a sensitive/threatened and endangered species in a given area relative to site potential.

Guidelines for management of grazing (including domestic animals and wildlife) are preferred or advisable approaches to ensure that standards can be met or that significant progress can be made towards meeting the standard. The guidelines that would apply for these alternatives are; "Lewistown GUIDELINE #11: Grazing management should maintain or improve habitat for federally listed threatened, endangered, and sensitive plant and animals." and "Lewistown GUIDELINE #12: Grazing management should maintain or promote the physical and biological conditions to sustain native populations and communities."

The Endangered Species Act of 1973 provides for the protection of listed species and their habitats. Species listed as threatened or endangered are to receive special protection. Any actions that may detrimentally impact these species will be reviewed by the U.S. Fish and Wildlife Service under a formal consultation process. A threatened species is one likely to become endangered in the foreseeable future. An endangered species is one that faces extinction throughout all, or a significant portion of its range. Federal agencies are directed to carry out programs for threatened or endangered species and the essential habitat upon which they depend. These programs are to bring these species and their habitats to a condition where the protective measures provided by the Endangered Species Act are no longer necessary.

The BLM provides the same level of protection to candidate species as listed species except that formal consultations are not required. The mandatory requirements of the Endangered Species Act have the potential for imposing major constraints on other uses of the public lands. In many cases, there is no managerial discretion for carrying out programs that conflict with threatened or an endangered species objectives.

ALTERNATIVE A - CURRENT MANAGEMENT

Bitter Creek

The area would not be designated an ACEC. The current management of this area is guided by the Interim Management Policy for Lands Under Wilderness Review (IMP), BLM Handbook H-8550-1, until Congress determines its eligibility into the National Wilderness Preservation System. If Congress does not designate this area as wilderness, it would be managed in accordance with guidance for adjacent BLM land unless otherwise specified. (BLM, 1992)

The WSA is not available for oil and gas leasing under the IMP. The Federal Onshore Oil and Gas Leasing Reform Act of 1987 also prohibits BLM from leasing in WSAs. If released from wilderness study status, the BLM would protect surface resource values on lands open to oil and gas leasing. The area would be open with standard terms and standard lease stipulation (Form 3109-1, Appendix B). The standard lease stipulation would be used to protect raptors, crucial winter range, soils and visual resources.

Exploration for or development of other minerals (bentonite, sand and gravel) is not permitted. If released from wilderness study status, the public lands would be open for exploration or development, however, there is the low probability of other mineral occurrence. (BLM, 1989)

Vegetative manipulation by chemical, mechanical, or biological means is not permitted except for (1) plantings or seedings established before October 1976 may be maintained but not expanded; (2) activities that qualify under the manner and degree provision for grandfathered grazing uses; and (3) control of noxious weeds and individual exotic plants when there is no effective alternative and when the control of noxious weeds or exotic plants are necessary to maintain the natural ecological balances within a WSA. Hand or aerial seeding of native species may be done to restore natural vegetation. If released from wilderness study status, land treatments would be similar to that of adjacent lands.

Rangeland management activities on lands under wilderness review involve the distinction between grazing uses that are grandfathered by Section 603 (c) of FLPMA and those that are not. Grandfathered grazing use is that grazing use, including the number, kind, and class of livestock and season of use authorized and used during the 1976 grazing fee year, including areas that were in the rest cycle of a grazing system; non-grandfathered grazing is any grazing that was not authorized and used during the 1976 grazing fee year. If released from wilderness study status, grazing would be managed similar to that of adjacent lands.

Current management of noxious plants is guided by the IMP where integrated pest management is the primary tool with provisions of using the minimum tools necessary to eradicate such species. Public education is incorporated into the current management of what one can do to prevent the spread of noxious weeds through the Leave No Trace program. If released from wilderness study status, integrated pest management will still be the primary tool.

No action would be initiated on BLM land which would jeopardize any candidate species or jeopardize any federally listed threatened or endangered plant or animal. If released from wilderness study status, the potential for developing reservoirs for waterfowl production would be investigated.

Under the IMP this area is managed as a semi primitive non-motorized area. If released from wilderness study status this area would be managed as an extensive recreation management area where a limited commitment of resources will provide dispersed and unstructured recreational activities.

Off highway vehicle (OHV) travel is limited to numbered routes only. Cross-country travel is prohibited. If released from wilderness study status, OHV travel would be restricted seasonally, during hunting season, to numbered roads. Cross-country travel would be allowed the remainder of the year.

Under the IMP, minimum impact fire suppression tactics will be employed to insure the actions taken are safe, timely, and effective. Suppression techniques will focus on enhancing a natural barrier such as a road or trail. If released from wilderness study status, fire suppression tactics would be the same as on adjacent lands.

Under the IMP any land authorization must satisfy the non-impairment criteria. If released from wilderness study status, right-of-ways would be considered on a case by case basis with appropriate stipulations.

For any surface disturbing activities (e.g. mineral development, range improvements, right-of-way location), BLM would evaluate the activity and if necessary apply mitigating measures, deny the authorization, or relocate the activity to a more suitable area. Surface disturbing activities would require reclamation.

Mountain Plover

The area would not be designated an ACEC. The area would be managed consistent with the existing guidance from the Judith-Valley-Phillips RMP.

Wildlife and fisheries management priority would be given to the mountain plover. The emphasis for habitat maintenance and development would be on present and potential habitat for sensitive, threatened and/or endangered species. No action would be initiated on BLM land which would jeopardize any candidate or federally listed threatened and endangered plant or animal.

The BLM would protect surface resource values on lands open to oil and gas leasing. The mountain plover habitat area is open to oil and gas leasing subject to standard stipulations (Form 3109-1). The provisions of the standard stipulation would be used to protect the mountain plover (use or occupancy will be restricted within 1/4 mile from identified essential habitat).

Under the draft Judith-Valley-Phillips Oil and Gas Supplemental RMP/EIS (BLM, 1998) a new stipulation would apply. The 27,000 acre hardpan area would have a special timing stipulation (see Appendix B). The stipulation is; surface use is prohibited from April 1 to July 31 within 1/4 mile of occupied nesting habitat for mountain plovers. This stipulation does not apply to the operation and maintenance of production facilities. For the remaining energy mineral resources (geothermal, oil shale, and coal) the public lands would be open for issuing prospecting permits and leases with mitigation measures.

With non-energy mineral resources (hardrock mining) all federal minerals are available for exploration and development. The BLM would allow exploration and development of bentonite resources while preventing unnecessary or undue degradation of non-mineral resources. This area is available for mineral material disposal.

Land treatments such as contour furrowing and grazing methods to improve ground cover and control erosion, runoff, and sedimentation could be applied in the Willow Creek Basin and in other locations with similar soils. Prior to constructing any rangeland improvements, a wildlife biologist would provide site-specific recommendations and develop needed mitigating measures.

Livestock grazing is managed as an integral part of the overall multiple-use of the public lands. Range improvements (primarily reservoirs, and fences) would be built to support AMPs. Grazing methods to improve or maintain riparian-wetland areas to proper functioning condition would be continued or implemented.

The primary tool for the control of noxious plants would be IPM (integrated pest management), which are mechanical, biological, and chemical methods.

Spraying or other control methods for insects could be allowed using mechanical, biological, and chemical methods.

The BLM lands in this area would remain open to off-road motorized travel. Cross-country travel is open yearlong as described in the Judith-Valley-Phillips RMP.

Fire management such as prescribed burning would be administered on an individual basis in grassland types to improve wildlife habitat and vegetation production.

Land authorizations such as rights-of-way would be considered on a case-by-case basis with appropriate stipulations.

For any surface disturbing activities (e.g. range improvements, mineral development, right-of-way location), BLM would evaluate the activity and if necessary apply mitigating measures, deny the authorization, or relocate the activity to a more suitable area. Surface disturbing activities would require reclamation.

ALTERNATIVE B - ACEC DESIGNATIONS (Preferred)

Bitter Creek

Bitter Creek would be designated an ACEC (59,666) public surface acres, see Figure 2). If Congress adopted BLM's recommendation and released Bitter Creek from WSA status, a plan for management of the ACEC would be initiated within two years. This ACEC management plan would be developed through a public process and would consider various alternatives. Following release by Congress and until an ACEC Management Plan is completed, the special management would be the same as the revised edition of the IMP existing in 1998 as described under Alternative A.

Mountain Plover

The Mountain Plover area would be designated an ACEC (24,730 public surface acres, see Figure 3). The boundary would be on existing roads (42.3 miles) and property lines (3 miles). A watchable wildlife area could be established in an unobtrusive area for environmental education. The ACEC would include two habitat areas for the mountain plover. The primary habitat is the hardpan area (Vanda silty clay soils) the Nuttall's saltbush habitat on the valley bottoms (12,000 acres). The secondary habitats are on the gentle rises on either side of the valleys.

The following management prescriptions would apply within the ACEC to protect the mountain plover during the nesting period from April 1 to July 31.

A seasonal restriction would be placed on oil and gas activities. Geophysical exploration would not be allowed from April 1 to July 31 and oil and gas leases would include a stipulation that prohibits surface use from April 1 to July 31 (see Appendix C). The following mitigating measures would apply for any oil or gas well completed as a producer.

1. Alternative location of facilities off the primary habitat (hardpan areas) within the ACEC.
2. Pipeline and road construction would not be allowed from April 1 to July 31 in the primary habitat.
3. Special projects (work over rigs, pipeline maintenance) during the period April 1 to July 31 would require an inventory to determine if occupied nesting habitat occurs. If there are occupied nests within 1/4 mile of the proposed activity, mitigation could include the use of a temporary road or with travel in the early morning or late afternoon but no travel from 11:00 a.m. to 4:00 p.m. If there are no occupied nests within 1/4 mile of the proposed activity, special mitigation measures would not apply.

The following mitigating measures would be considered during the Plan of Operations approval process for bentonite exploration and development. Mitigating measures would be applied to prevent unnecessary or undue degradation.

1. Seasonal restrictions would be recommended on surface disturbing activities from April 1 to July 31 on a case-by-case basis to prevent unnecessary or undue degradation. Proposed surface disturbing activities during the period April 1 to July 31 would require an inventory to determine if occupied nesting habitat occurs. If there are occupied nests within 1/4 mile of the proposed activity, the BLM would work with the operator to relocate the proposed activity or limit the size and duration of the disturbance. If there are no occupied nests within 1/4 mile of the proposed activity, special mitigation measures would not apply.
2. Alternative location of facilities off the primary habitat (hardpan areas) within the ACEC.
3. Access route design for exploration and development would minimize surface disturbance to avoid occupied nesting habitat.
4. Concurrent reclamation would be emphasized to keep disturbance to a minimum, thereby reducing habitat loss. Concurrent reclamation is the method of reclamation where topsoil removed from an area about to be mined is either 1) directly and immediately reapplied to the adjacent mined area; or 2) the topsoil is applied to the area it was removed from within a short time (1-2 months). Concurrent reclamation provides the greatest opportunity to return the native plant community to the site by preserving the seeds, roots and soil microorganisms. The topsoil material is only about 1-2 inches thick over shale in most places. Within this thin layer are all the ingredients to reestablish the native plant community. If concurrent reclamation is not used, reclamation should be within at least 2 years. The goal of reclamation would be to keep the vegetation short with bare ground.
5. Reclamation would utilize native plant species. Preference would be given to plants that are low growing.

All right-of-way (ROW) grants within the primary habitat would include the following stipulation. Construction activity and surface disturbance would be prohibited during the period from April 1 to July 31 for the protection of mountain plover nesting habitat. Any exceptions to this requirement must have prior written approval from the authorized officer, except for emergency actions. Other mitigating measures would be considered on a case-by-case basis with appropriate stipulations from BLM Manual Handbook H-2801-1 incorporated into the ROW grant.

The BLM would minimize any road construction within the ACEC. A portion of two roads are recommended for rerouting to reduce erosion and avoid mountain plover nesting habitat; Beaver Branch and Arrambide.

Off-highway travel would be restricted seasonally (April 1 to July 31) to designated roads and trails (see Figure 3). Off-road travel would be limited to administration of a federal lease or permit.

Current management for livestock grazing would continue but any changes or revisions based on standards for rangeland health and guidelines for livestock grazing management would address mountain plover habitat.

Other activities and surface disturbing activities would be limited seasonally or prohibited within the ACEC. Land treatments, e.g., contour furrowing or chisel plowing, would not be allowed within the ACEC. Construction of range and wildlife improvements or use as a fire staging area would not be allowed from April 1 to July 31. The containment/eradication of noxious plants would focus primarily on treatment in the fall and/or aerial spraying. The use of insecticides would not be allowed.

ALTERNATIVES CONSIDERED, BUT NOT ANALYZED IN DETAIL

This section discusses alternatives considered but eliminated from detailed study, along with a brief discussion of reasons why they were determined not to be reasonable alternatives.

Mixed Grass Prairie

An alternative designating the entire Mixed Grass Prairie nomination (350,000 acres) an ACEC was not considered since the nomination does not meet the criteria of relevance and importance. Only a portion of the area, Bitter Creek, meets the criteria. To be considered as a potential ACEC and analyzed in resource management plan alternatives, an area must meet the criteria of relevance and importance, as established and defined in 43 CFR 1610.7-2.

Bitter Creek ACEC Management Plan

Management of the Bitter Creek WSA will continue under the IMP until Congress determines wilderness or non-wilderness status. The time table for Congress to act on this is unknown. Therefore a management plan would be premature at this time; and may be unnecessary if Congress determines that this prairie ecosystem should be represented in the Wilderness Preservation System. Since Congress can delay the fate of this area for decades, issues that would be apparent in developing a management plan today, may be moot points if and when we need to develop a management plan.

Boundaries of the 59,660 acre ACEC

Changing the boundary and excluding the northeast portion of the Bitter Creek area was considered. This area, often referred to as the "horsehead" because of it's shape on the map, has a difficult boundary to define on the ground. However, this area is an integral part of the overall Bitter Creek WSA in terms of the scenic, cultural, and wildlife resources.

Introduction of Wild Horses

It was suggested during scoping that BLM introduce wild horses in the Bitter Creek area. This is outside the scope of this document.

Mountain Plover Habitat Enhancement

This alternative would include the use of livestock to increase the area of short vegetation. Domestic sheep grazing produces habitat conducive to mountain plovers, in other parts of Montana. This alternative would require that sheep be used along with cattle to more heavily utilize the grass in areas that are not naturally covered with short vegetation or bare sections. This alternative was eliminated from detailed study because the existing fences would have to be modified to become sheep fences. These tightly spaced or woven wire fences would restrict the movement of pronghorn antelope, which are abundant in the area. More time and labor would be required of the livestock permittees, if sheepherders were used instead of fences. Another reason for eliminating this alternative is the potential for resource degradation, especially erosion on shale derived soil under very heavy grazing.

Mountain Plover Nest Protection

This alternative would include the use of cages to cover the nests of the mountain plover to increase the nesting success. Small mesh wire cages are currently being used to protect the nests of piping plovers by other agencies. These cages appear to increase the number of chicks that are hatched along the beaches of the east coast and the sand bars of the Missouri River where people and dogs are abundant. This alternative was eliminated from detailed consideration because destruction of nests or predation by people or dogs is not a factor in mountain plover productivity in this area.

SUMMARY OF ALTERNATIVES

Tables S.1 and S.2 present a summary comparison of the alternatives and the environmental consequences.

Table S.1. Summary of Alternatives

	Alternative A	Alternative B
Bitter Creek	Would not be designated an ACEC and would continue to be managed as a Wilderness Study Area (WSA) under the Interim Management Policy (IMP). If released from WSA status the area would be managed per guidance for adjacent lands unless otherwise specified.	Would be designated an ACEC. If Bitter Creek is released from WSA status an ACEC management would be initiated within two years, during which management would continue under the IMP.
Energy Mineral Resources	The area would not be available for Oil and Gas leasing. If released, standard terms and stipulations would apply.	The area would not be available for Oil and Gas leasing.
Other Minerals	Exploration and development of other minerals would not be permitted. If released, lands would be open to exploration and development.	Exploration and development of other minerals would not be permitted.
Land Treatments	Mechanical or chemical vegetation manipulation would not be permitted. If released, land treatments could occur.	Mechanical or chemical vegetation manipulation would not be permitted.
Grazing	Grandfathered range management activities would be permitted. If released, grazing would be managed similarly to adjacent lands.	Grandfathered range management activities would be permitted.
Noxious Weeds	Noxious weed control would be done using minimum tool and integrated pest management concepts. If released, integrated pest management would continue.	Noxious weed control would be done using minimum tool and integrated pest management concepts.
Recreation	Managed as a semi primitive non-motorized recreation area. If released, it would be managed as an extensive recreation management area.	Managed as a semi primitive non-motorized recreation area.

Table S.1. Summary of Alternatives (continued)

	Alternative A	Alternative B
Off-Highway Vehicles	OHV travel limited to numbered routes, if released, number route limit would only apply in hunting season.	OHV travel limited to numbered routes.
Fire Management	Minimum impact fire suppression tactics would be employed. If released, fire suppression would be same as adjacent lands.	Minimum impact fire suppression tactics would be employed.
Land Authorizations	All land authorization must meet the non-impairment criteria. If released, reclamation would be required but not non-impairment.	All land authorization must meet the non-impairment criteria.
Mountain Plover	The area would not be designated an ACEC. No action would be taken to jeopardize the mountain plover.	The area would be designated an ACEC. Special management would be applied to benefit the plover.
Energy Mineral Resources	Oil and Gas leasing and development would follow standard terms and stipulations.	Seasonal restrictions would be applied to both exploration and development.
Other Minerals	The BLM would allow exploration and development of bentonite resources while preventing unnecessary or undue degradation of non-mineral resources.	Seasonal restrictions (April 1- July 31), native species reclamation standards, facility location, road design and use restrictions would be applied to bentonite mining and other surface disturbing activities.
Noxious Weeds	Noxious weed control would use integrated pest management methods.	Noxious weed control would use integrated pest management methods.
Grazing	Grazing management would be implemented to meet Standards and Guidelines, including wildlife habitat standards.	Grazing management would be implemented to meet Standards and Guidelines, and specifically address mountain plover habitat.
Range Improements	Range improvements including, land treatments could be done with stipulations to protect wildlife.	Construction prohibited April 1- July 31. No mechanical land treatments.
Off-Highway Vehicles	BLM lands would remain open to off-road motorized travel.	OHV use would be restricted seasonally to designated roads and trails.

Table - S.2 - Comparison of Impacts: Bitter Creek

	Alternative A (Current Management)	Alternative B (Proposed Action)
Land Treatments	There would be a low potential for mechanical and chemical land treatments.	There would be no mechanical and chemical land treatments.
Fire Management	Low potential for impacts from wildfire suppression activities. Minimum tool fire suppression.	Controlled burning could be used to improve vegetation.
Wildlife & Fisheries Management	Possible construction of waterfowl or fisheries reservoirs.	No impact to wildlife. No impact from wildlife management.
Recreation	Potential loss if naturalness and semi-primitive experience.	No impact.
Off Highway Vehicles	Low potential for creation of new trails.	No impact.
Grazing	Construction of reservoirs and fences.	No impact.
Energy Mineral Resources	Moderate potential for loss of naturalness, visual impacts, wildlife habitat and security loss and cultural resource loss.	No impact.
Minerals	No expected impact	No expected impact.

Table - S.2 - Comparison of Impacts: Mountain Plover

	Alternative A (Current Management)	**Alternative B (Proposed Action)**
Land Treatments	No treatments would occur on plover habitat. No impact to plover.	No treatments would occur on plover habitat. No impact to plover.
Fire Management	No impact	No impact
Wildlife & Fisheries Management	No impact.	No impact.
Recreation	Open to off-road travel yearlong. Minor potential for disturbance due to off road travel. Continued erosion on poorly designed access routes.	Seasonal closures to off-road travel. Potential to attract visitors to view plover. Reduced impact from off-road travel. Reduced erosion by rerouting two major access roads.
Grazing	Positive impact to plovers. Small disturbance to plovers from construction of range improvements.	Positive impact to plovers. No effect on permittees. Seasonal restrictions would eliminate potential disturbance due to constructions of improvements.
Energy Mineral Resources	Leasing and exploratory drilling would be controlled by applying standard terms and stipulations to protect the mountain plover. No special management would be required during development.	Timing restrictions on both exploration and development would protect the plover from disturbance during the nesting and rearing period.
Non-Energy Mineral Resources	No expected impact.	No expected impact.
Bentonite	Impacts to mountain plovers would occur if mining occurred during nesting.	Seasonal restrictions on mining activities would protect the plover during the nesting period.
Land Authorizations	No impact to plovers.	No impact to plovers.

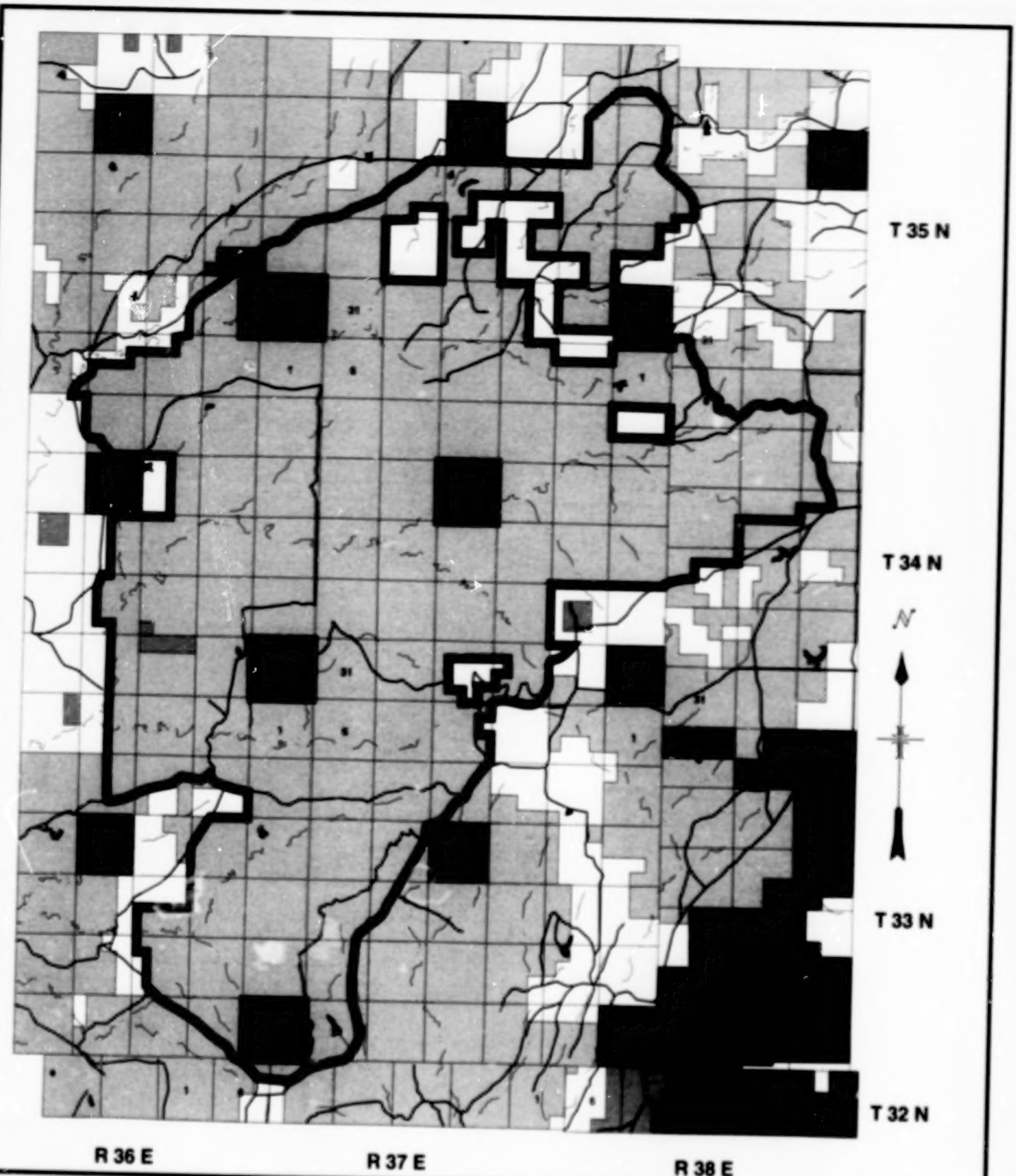
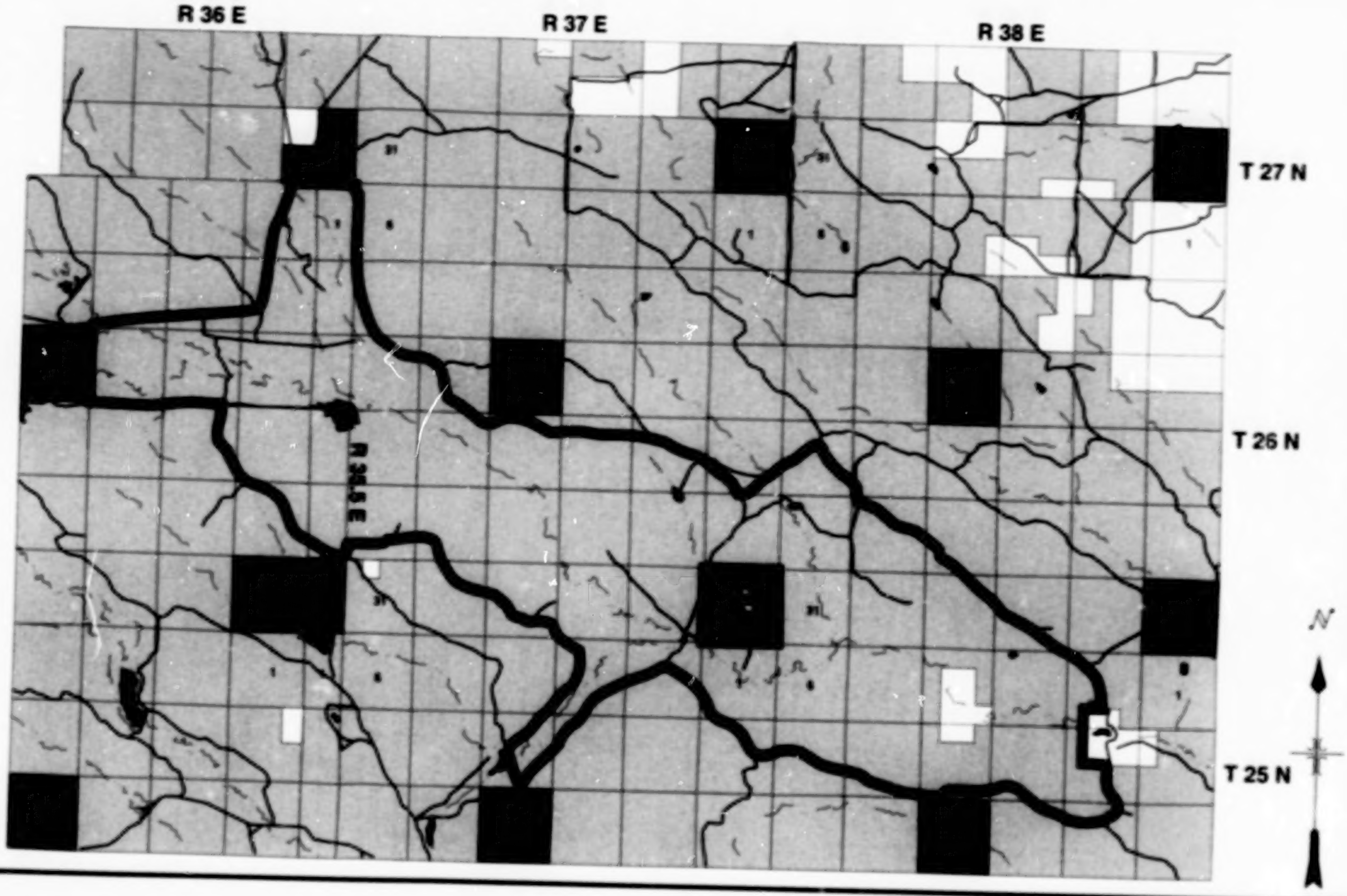


Figure 2

Bitter Creek ACEC



▨ Federal Land
■ State Land
☐ Private Land
▬ ACEC Boundary

Figure 3
Mountain Plover ACEC

CHAPTER 3
AFFECTED ENVIRONMENT

INTRODUCTION

This section of the plan amendment and environmental assessment (EA) contains a description of the pertinent natural resources and land uses found in the area. The following critical elements of the human environment are not affected and will not be addressed further in this document; air quality, prime and unique farm lands, floodplain, hazardous wastes, wild and scenic rivers, and environmental justice. More information about the area can be found in the Judith-Valley-Phillips Resource Management Plan (RMP) and final Environmental Impact Statement (EIS) (BLM, 1992) and the final Bitter Creek Wilderness EIS (BLM, 1989).

BITTER CREEK

The Bitter Creek Wilderness Study Area (WSA) is located in the glaciated Missouri Plateau. The topography consists of flat to gently rolling terrain with rugged denuded badlands. Summer temperatures are hot with maximum temperatures in the high 90 degree Fahrenheit range. Winters are cold, with many days of sub-zero temperatures and a constant wind-chill factor is present.

Scenic

Land characteristics of this area include rolling terrain, denuded badlands, and lush riparian areas. The major drainages support shrubs, willows, and cottonwood trees. Large plateaus converge into rugged eroded breaks. There are some high cliffs and classic badlands type areas. A "blow-out" type of landscape exists where the shale soils are held in place by horizontal juniper, buffaloberry, and a variety of small shrubs.

There are minimal visual intrusions which do not detract from the scenic experience. Scenic qualities include the vast, unhampered domain; lack of synthetic facilities such as paved roads, buildings, billboards; and spatial organization such as line, form, visual compositions that dominate the landscape. These visual compositions can be defined as vegetation characteristics, geological features, visual clarity, and social imprints.

A watchable wildlife area is situated on the eastern rim where hawks and eagles can be seen soaring over the WSA. This rim differs in elevation by as much as 600 feet from the floor of the WSA.

Nightfall transforms this area into darkness with illumination from the celestial sphere. The lack of facilities and lighting enhance the night sky. The sense of vastness on this open landscape during the night, the sounds of nocturnal animals, and the clarity of the constellations turn the night and this area into an intriguing area for visitors who enjoy the night time nature.

Soils

Seventy percent of soils consist of shallow to moderately deep Lisam and Dilts soils on shale uplands. Surface runoff is rapid and water erosion hazard is severe. Thirty percent of the soils are mainly Phillips, Elloam and Thoeny. They are deep, well drained soils on glaciated uplands. Surface runoff is medium and water erosion hazard is moderate.

Vegetation

The Bitter Creek WSA contains a variety of plant communities in healthy condition, including riparian, wetland, shortgrass prairie benches, woody draws, and shale badlands. The WSA is within the Grama-Needlegrass-Wheatgrass (Bouteloua-Stipa-Agropyron) Potential Natural Vegetation type (Kuchler, 1966) and is representative of this type in late successional status. There are wooded draws which include buffaloberry, Rocky Mountain juniper, green ash, chokecherry, and less commonly aspen.

The dominant vegetation of the stream channels is a sedge-rush and/or streambank willow community at the wettest zone with rose-snowberry, buffaloberry and silver sagebrush with western wheatgrass, green needlegrass, Canada wildrye and other deep rooted perennial grasses at the upper terrace levels. Tree cover is very limited; species include green ash, plains cottonwood and peachleaf willow.

Leafy spurge has invaded the WSA and has altered the vegetation of some of the riparian areas entering Rock Creek. It is estimated that there are 500 acres of leafy spurge on BLM public lands within the WSA. About 2/3 of the area, on the north and east, has a light infestation. Chemical control is practiced in this zone. In the Eagle's Nest allotment the infestation is heavy along the streams and chemical control is not feasible. Biological control is practiced in this zone.

Water Resources

The entire WSA is within the Willow Creek watershed. There are no perennial streams in this area and existing waters in reservoirs and seasonal runoff contain high levels of salts. Willow Creek, Bitter Creek, Chisholm Creek, and Eagles Nest Coulee are the primary stream courses in the WSA.

Wildlife

The Bitter Creek area combines a lack of road development with a variety of habitats, which supports a diversity of grassland wildlife species. Included in this area are excellent examples of prairie riparian, wetland, grassland, woody draw, and breaks habitats. Migratory game, upland game and non-game birds; raptors; game and non-game resident wildlife; fur-bearing; and predatory wildlife species; amphibians and reptiles are present in the area either yearlong or seasonally. The predominant wildlife species in the area are ones that migrate. Game species include mule deer, pronghorn antelope, sharp-tailed grouse, and sage grouse. One black-tailed prairie dog town is located in the southern end of the area.

Historical and potential habitat for six species of wildlife which are federally classified as endangered or threatened occur within the Judith-Valley-Phillips planning area. These species are the bald eagle, Peregrine falcon, black-footed ferret, gray wolf, least tern, and piping plover. Bald eagles and Peregrine falcons could migrate through the area, but they would not stay for a lengthy period of time or to nest in the area. There is very limited black footed ferret habitat in this WSA, and no ferret sightings have been made. A gray wolf was known to wander through the area approximately 20 years ago, but no sightings have been reported since. The remaining 2 species, least tern and piping plover, would not be expected to be found in the area.

Cultural Resources

No systematic cultural inventory of the Bitter Creek WSA has been undertaken. However, numerous cultural sites are known to occur in the vicinity of the WSA as a result of project related inventories. Prehistoric inhabitants of this area were semi-nomadic hunter-gatherers. They were dependant on the abundant bison, pronghorn, deer and elk of the region as well as seasonally important plant species. They left behind chipped stone tools, fire hearths and the stones that held down the bottoms of their lodges or tepees. These prehistoric features are still visible in the WSA. This region was later homesteaded and cultural features associated with farming and raising livestock are also in the area.

Recreation

Major recreation interests include hunting, wildlife viewing, hiking, sightseeing, nature study, and photography. Other recreational uses include camping, backpacking, and visiting homesteads. An interagency watchable wildlife brochure exists which features the Bitter Creek watchable wildlife area, drawing tourists to this site.

This area is managed for sparse use which is appealing to individuals who value for example; challenge, remoteness, harsh conditions, risk taking, pioneering, self-reliance, and minimal social encounters. This semi-primitive non-motorized area diversifies the recreation opportunities in Northeastern Montana.

Off-highway vehicle (OHV) use is restricted yearlong to the numbered roads only, while foot and horse travel carry no restrictions. In order to reduce the spread of noxious weeds, 96 hours before entering public lands, animals should be fed only food that is certified weed free.

Grazing

Six ranchers use the Bitter Creek WSA for cattle operations. Allotment management plans are prescribed for the ranchers which consists of rest-rotation or deferred-rotation grazing. Cattle graze in the area from April 1 through November 15.

Non Energy Minerals

There is no non energy mineral production within the analysis area. However, the area does have varying potential for bentonite, uranium, geothermal energy, and sand and gravel. The following probabilities and classifications for potential mineral resources were provided, by contract, by Tetra Tech Incorporated in 1983: bentonite was given a moderate probability (while bentonite could occur on approximately 55,950 acres, there are no identified deposits and no indication of economic interest); sand and gravel was given a low probability; uranium was given a low probability; and geothermal energy sources were given a low probability. There are no active mining claims or mineral leases within the WSA.

Energy Minerals

There is a moderate potential for oil and gas development. Presently, there is no production on any lands in the analysis area. All public lands in the WSA are closed to leasing until Congress makes a decision on the wilderness/non wilderness status of the Bitter Creek WSA. A lease on state lands bordered by units of the WSA has expired.

Natural gas production in Valley County is exclusively gas from the Bowdoin Dome Area which consists of shallow, low pressure reservoirs of Cretaceous and older age. The average depth of production is about 1,500 feet. In addition to these existing producing fields, Valley County contains an area which is considered high potential for exploration.

The Bitter Creek area is at the western edge of the Williston Basin geologic province. The Williston Basin contains structural deformation features in the form of anticlinal and synclinal folds which act as structural traps to the migration of hydrocarbons. It is these features that are of interest to the oil and gas industry for possible exploration and development. The sedimentary rocks are relatively narrow in thickness (7,000-9,000 feet) in the Basin before the crystalline basement rock (non-sedimentary rock and very unlikely to contain hydrocarbons) is encountered. Leasing and development in the Basin has produced prolific amounts of oil and gas in eastern Montana and western North Dakota.

The Bowdoin Dome gas field, 16 miles southwest is the nearest hydrocarbon production. Lustre Oil Field, located 35 miles to the southeast, is the nearest Williston Basin oil production.

Land Authorizations

Northern Border Pipeline Company has a 4 1/2 mile long right-of-way for an underground gas pipeline in the ACEC area. There are no other right-of-ways within the ACEC area.

Economic and Social

The area is rural, sparsely populated, with an agricultural based lifestyle. Valley County's population was 8,239 in 1990, a 20% decrease from 1980. In recent years the population of Valley County has increased with an estimated 1995 population of 8,462, a 3% increase since 1990. The population of Valley County is expected to continue to slowly increase. The economy of Valley County is based on the natural resources in the areas. These resources include the land, which is used for crop and livestock production, and water and wildlife that offer outdoor recreation activities. Most of the county's employment and personal income is derived from these natural resources. Agriculture, services, and government are the main sources of employment in Valley County.

Public lands contribute to the local economy through livestock forage and dispersed recreation. In addition public lands are valued for their environmental resources, recreational opportunities, cultural resources, and in an increasingly urban world, the vast open space.

MOUNTAIN PLOVER

The Mountain Plover area is located in south Valley County, Montana. The eastern corner of the area is approximately 20 miles west of Glasgow, Montana, in the Milk River Basin. The area's watercourses drain into tributaries of Willow Creek, which flow into the Milk River downstream of Glasgow.

Soils

A common soil along the watercourses is a Vaeda silty clay. This nearly level and gently sloping soil (0 to 3%) is on fans and terraces. The Vaeda series consists of deep, well drained soils that formed in alluvium deposited by water from ancient rivers. Permeability is very slow. The available water capacity is low or moderate. They have a high content of sodium (alkali) which causes a dispersed condition, and intake of water into the soil is restricted. This soil is subject to rare flooding. Surface runoff is medium to rapid. The hazard of wind erosion is slight and the hazard of water erosion is moderate. A common term to describe these soils is "hardpan". Mountain plovers were found to primarily use these areas.

Surrounding the Vaeda silty clay soils are predominantly Lisam-Dilts clays with Thebo-Lisam clays, with 5 to 35 % slopes. This complex consists of undulating to strongly rolling soils on uplands. The soils occur in an unpredictable pattern on the landscape. In places cobbles and stones are on the surface. Surface runoff is rapid. The hazard of wind erosion is moderate and the hazard of water erosion is severe. (Soil Survey of Valley County, Montana)

Vegetation

The major upland vegetation types that occur in this area include the Grass, Big Sagebrush/grass, and Saltbush types. These vegetation types are described in the Judith-Valley-Phillips RMP. Clubmoss does not cover any appreciable amount of land in this area. The Saltbush type is the important one for this analysis, so a short summary of this type is; Nuttall's saltbush is the dominant plant on broad alluvial valleys associated with sedimentary badlands. Associated grass species include Sandberg bluegrass and western wheatgrass. Important forbs include prickly pear, wild onion, and wild parsley. Greasewood is often associated as a fringe type.

Mountain plovers were found to primarily use the Nuttall's saltbush habitat on the valley bottoms. On the gentle rises on either side of the valleys is the wild buckwheat habitat. Both habitats have an extremely low vegetative height profile (<4 inches) and large amounts of bare ground, primarily found in the bottom lands of the major drainages. Other habitats used by the mountain plovers included bentonitic soils dominated by a sparse growth of knotweed species, low rises in the bottom lands containing almost pure stands of blue grama, and shale soils with western wheatgrass. This latter habitat was found on the ridge sides among the horizontal juniper habitat. (FaunaWest, 1994)

Other similar appearing areas of vegetation (or lack of vegetation) are elsewhere in south Valley County and also in north Valley County, but not as extensive. Surveys have been conducted at various times during the last few years, but mountain plovers have not been observed on any other public lands in Valley County.

Water Resources

This potential ACEC is within the Little Beaver Creek watershed. Water quality is limited by salt content and high sedimentation rates due to the sparsely vegetated shale uplands. Little Beaver Creek is in functional-at risk status with a static trend. Grub Reservoir is the only large waterbody and covers 2[illegible] acres.

Wildlife

Game species include mule deer, pronghorn antelope, and sage grouse. There are numerous nongame species. No black-tailed prairie dog towns are in the vicinity of the areas. The closest complex of larger towns is approximately 20 miles to the southwest. There is a small town on state land about 10 miles east. Plovers are typically associated with prairie dog towns greater than 50 acres.

The knowledge about mountain plover locations and habitat in the area received an early assistance due to mining activities. Their biologists in the late 1970's and early 1980's checked out areas that could be mined for bentonite and documented the presence of plovers.

Historical and potential habitat for 6 species of wildlife which are federally classified as endangered or threatened occur within the Judith-Valley-Phillips planning area. These species are the bald eagle, Peregrine falcon, black-footed ferret, gray wolf, least tern, and piping plover. Bald eagles and Peregrine falcons could migrate through the area, but they would not stay for a lengthy period of time or to nest in the area. The remaining 4 species would not be expected to be found in the area for any length of time. The mountain plover is a candidate for listing as either threatened and endangered. This potential ACEC was nominated for the mountain plover so considerable discussion about this bird will follow.

The mountain plover is a member of the group of birds called shorebirds that are usually found along the edges of water areas. It is an unusual shorebird since it spends its entire life away from water. The mountain plover is a Great Plains native that breeds on the arid shortgrass prairie from southeastern Alberta and southwestern Saskatchewan (NRCan, 1997) to southern New Mexico and winters in California, Texas, and Mexico. Since 1837, it has been found in 23 states, Canada, and Mexico. The number of mountain plovers has declined drastically in the last century. About 1900, it was abundant and was heavily market hunted in California and probably throughout its range. As early as 1914, plover numbers were reported to be declining. (Nebraska, 1997) During the past century, the conversion of native prairies to croplands has significantly reduced the availability of suitable habitats for this species, producing a significant decline in the continental population.

Current distribution maps are misleading, showing plovers occurring over a large range. In reality, habitat within this range is limited. Nearly half of the remaining breeding population is found in Weld County, Colorado and Phillips County, Montana, with a very local distribution elsewhere in its range (Andrews and Righter, 1992). They tend to be poorly sampled by roadside surveys such as the Breeding Bird Survey (BBS) where they are recorded in very small numbers from New Mexico to Wyoming. The survey-wide indices are variable but with a declining tendency. (BRD, 1995) The BBS routes in Montana do not cover areas with mountain plovers. No quantitative monitoring information from BBS is available for Montana.

The mountain plover was designated endangered in 1987 in Canada, (NRCan, 1997) a species of special interest or concern in Montana and Oklahoma, extirpated in North Dakota and South Dakota, on the watch list in Kansas and threatened in Nebraska. (Nebraska, 1997) The U.S. Fish and Wildlife Service is considering listing the mountain plover as threatened throughout its range.

The mountain plover looks much like a pale version of the more common killdeer, but without chest stripes. The head, back, wings and portions of the upper breast are a pale, sandy brown. The neck and underparts are white. The front of the crown is capped with black, and a black stripe extends from the base of the beak to the eye. The dark bands contrast sharply with the brilliant white forehead and throat. In flight, the best field marks are a thin white wing stripe and black tail band fringed with a white border. Males and females are similar in size and color. (Nebraska, 1997)

The mountain plover is generally considered an inhabitant of the arid shortgrass prairie, which is dominated by blue grama and buffalo grass with scattered clumps of cacti and forbs. Mountain plovers are very selective in choosing nest sites, preferring expansive, arid flats (under 5%) with very short vegetation (under 4 inches) and a high proportion of bare ground (a minimum of 30% bare ground). In parts of its breeding range the mountain plover selectively nests in prairie dog towns. (Nebraska 1997) Intensive grazing is beneficial for Mountain Plovers, and they also regularly occupy prairie dog towns (Knowles et al. 1982). Also mountain plovers breed in semidesert sites within, and west of, the shortgrass prairie. These sites are mostly bare ground with scattered short forms of the genera saltbush (Atriplex) or sagebrush (Artemisia) (Wallis and Wershler, 1981, Parrish, 1988, Day, 1994), prickly pear (Opuntia), and Spanish-bayonet (Yucca) (Coues, 1874).

Mountain plovers arrive on the breeding grounds in small flocks. They are somewhat colonial during the breeding season, and may shift their breeding areas from year to year. Males commonly reoccupy their former territories, which they defend against intrusion by other males. Mountain plovers are solitary nesters. The nest consists of a shallow depression in the ground lined with a small amount of materials found nearby. (Nebraska, 1997) Nests are often near prominent objects (rocks, cow manure piles) to make the plovers less conspicuous to predators. (Knopf and Miller, 1994).

Mountain plovers usually lay three well-camouflaged eggs, brownish gray in color and are spotted or blotched with blackish brown. Only one adult attends the nest, rotating the eggs and shading them on hot days during the 29-day incubation. The brown-speckled chicks reach adult size 35 days after hatching. (Nebraska, 1997)

Chicks can run and capture their own food soon after hatching. Two to five days after the eggs hatch, adults may move the brood as far as half a mile to a mile and a half, then remain in that area until the chicks are fledged. One of the biggest problems for chicks is exposure to the prairie's hot afternoon sun. Shade is scarce on the prairie, and chicks seek shade under tall vegetation or in the shadows cast by livestock watering tanks, fence posts, telephone poles and adult plovers. Many eggs and chicks do not survive. Eggs are lost primarily to predation and hail damage, while chick mortality is primarily the result of predation. Predators include prairie falcons, ferruginous hawks, golden eagles, loggerhead shrikes, swift foxes and ground squirrels. (Nebraska, 1997)

Mountain plovers feed primarily on insects, especially spiders, beetles, grasshoppers, crickets and ants. The type of prey consumed changes throughout the season with beetles most common from late spring to midsummer and grasshoppers and ants eaten in greater quantities in late summer. (Nebraska, 1997) Grasshoppers are a primary food item in Montana. All food items are consumed immediately. All water requirements are obtained from food items (Knopf, 1996) Mountain plovers will forage on slopes and ridges. Adults with young have been observed in tall vegetation and around livestock watering facilities, which probably provide an abundance of insects. Adults also use plowed fields.

When using areas around cattle watering tanks, Mountain Plovers prefer ones that have a dry surface and often move broods there to forage. Tanks with seepage usually are frequented by Killdeers. Mountain plovers are rarely seen with Killdeers. (Graul, 1973).

Little information describing mountain plover migration is available. USGS Patuxent Wildlife Research Center shows in the table *Bird Banding and Recovery Data (Non-Game Banding Records 1955 - 1997)* of all the birds banded (1,498) only four birds have been recovered. (Patuxent, 1998)

Fall flocking begins as early as July, with birds leaving the breeding grounds by early September and arriving on the wintering grounds in early November. They depart from the wintering grounds in mid-March and arrive on breeding grounds in late April to early May.

When approached, a mountain plover is more likely to crouch or walk away than to fly. If disturbed, a bird may move a few steps then stop abruptly, standing silent and motionless. When forced to fly, it rises rapidly with quick wing beats flying low over the ground. (Nebraska, 1997) Breeding Mountain Plovers are relatively inconspicuous and easily overlooked. They tend to be poorly sampled by roadside surveys such as the Breeding Bird Survey where they are recorded in very small numbers from New Mexico to Wyoming. (BRD, 1995)

Cultural Resources

Numerous cultural inventories have been conducted in south Valley County on behalf of development projects. These inventories have resulted in the discovery of numerous cultural sites. These are generally small prehistoric sites consisting of stone tools, remnants of fire pits or hearths and stone cairns. Also abundant in this area are stone circles, outlining where tepees - the hide covered lodges of the plains once stood. The area also contains cultural features associated with farming and raising livestock.

Recreation

Dispersed recreation opportunities exist within this area being used primarily for hunting and OHV travel. The primary season of use is September 1 through December 1.

Grazing

The area is permitted for livestock grazing. All of the allotments are managed under allotment management plans. They prescribe rest-rotation or deferred-rotation grazing. Cattle are grazed in one allotment or another from April 1 through November 15. The hardpan areas preferred by the plover are primary grazing areas for cattle due to the nearly level terrain near Little Beaver Creek. There are six grazing allotments which are partially within the ACEC area.

In the past, domestic sheep were grazed yearlong in this section of the county. Cattle and horses also grazed in the area. During periods of low precipitation the competition for forage was intense, so some years the vegetation was short in height due to grazing and lack of growth.

Minerals

There are no current producing mines located on federal lands.

Extensive bentonite mining occurred in the area in the late 1970's and early 1980's, including the construction of a processing plant. Occasionally small amounts of bentonite are trucked out of the existing pits at this time. A mine was active in the western most portion of the Mountain Plover ACEC through 1985. Final abandonment was approved for the reclaimed mine site in 1995. Currently there are a total of 37 active lode mining claims located on, or near, the reclaimed lands. There is potential for mining to occur on some of these lands (about 740 total acres) in the future. There are no mineral material contracts in the area.

There are 22 lode mining claims within the ACEC area totaling about 440 acres. Currently Core Home Corporation has filed a 3809 Notice to develop a small surface mine on 4 acres of federal land adjacent to the ACEC in Section 11, T. 27 N., R. 36 E.

There is a moderate potential for oil and gas development. Geophysical exploration for oil and gas occurred in the 1960's and an exploratory well was drilled in the early 1990's near Hurricane Reservoir, on the western edge of the nominated area. The well was a non-producer. There are no currently active federal oil and gas leases in the area. There is the likelihood of exploratory drilling in the future. Past exploration in southern Valley County has involved drilling on exploratory units which range in size from 6 to 25 thousand acres in size (BLM, 1992).

Land Authorizations

There are no rights-of-way or other special use permits issued in this area.

Economic and Social

See the Bitter Creek section.

CHAPTER 4
ENVIRONMENTAL CONSEQUENCES

The BLM will comply with applicable laws, regulations, and policies in the implementation of this plan. The management actions will be carried out if adequate personnel and funding are available. There are no impacts to soils, water or cultural resources from any of the alternatives.

BITTER CREEK

Alternative A - Current Management

The area is currently managed as a Wilderness Study Area under the current Interim Management Policy (IMP). If the United States Congress decides that the Bitter Creek WSA should not be designated a Wilderness Area, then the area will be managed under the guidelines of the Judith-Valley-Phillips Resource Management Plan.

The impacts from activities that will occur in either case are summarized below from the Judith-Valley Phillips RMP and Bitter Creek EIS.

Fire Management: Under the IMP, burning could be done to support natural and necessary processes of the ecosystem to enhance the native plant community.

Land Treatments: If released from wilderness study status, vegetative manipulation, including burning or chisel plowing of clubmoss areas could be done to promote rangeland health. However, since the uplands in the Bitter Creek area are meeting the standards for rangeland health, it is unlikely that any extensive land treatments would occur. If treatments were done, they would result in enhancement of the productivity of native species and advance seral status of the native plant communities affected. Chisel plowing would leave the surface of the ground rough for 10-20 years. Burning would have no long term impacts.

Wildlife and Fisheries Management: Under the IMP, there is no impact.

If released from wilderness study status, reservoirs could be constructed for waterfowl habitat or fisheries. Since the area is not prime waterfowl habitat and very remote for fishing opportunities, it is expected that limited water development would be done for wildlife habitat enhancement.

Recreation: Under the IMP, this area is managed similarly to the semi-primitive non-motorized category of the Recreation Opportunity Spectrum and there is no impact.

If released from wilderness study status, there is the potential to manage these lands for development. This could result in a loss of naturalness through vegetation manipulation and building of structures and roads. This could alter the present character of this area and decrease the recreation opportunities for those people seeking a semi-primitive or wilderness experience.

Off-Highway Vehicles: Under the IMP, travel is limited to numbered roads only with no off road travel allowed. If released from wilderness study status the area would be open to cross-country travel except during the hunting season. This could result (low potential) in off road travel and creation of new trails in the area.

Grazing: Under the IMP, there is no impact.

If released from wilderness study status, range facilities such as crossfences and additional water developments could be constructed to manage grazing.

Oil and Gas: Under the IMP, the area is not available for oil and gas leasing and exploration or development.

There could be potential impacts related to oil and gas development. If released from wilderness study status, the area would be open to oil and gas leasing. Oil and gas development has the potential to alter the environment in the Bitter Creek area to the degree that the values that have qualified the area as a potential ACEC would be lost. There is a moderate potential for development of natural gas or oil in the area. A major field discovery would severely impact the naturalness of the area, affecting the visual resource and the visitor's experience in general. Wildlife habitat and natural vegetation would be impacted to a minor degree. Wildlife security would be affected severely by the network of service roads that could be required and increase in human activity. This impact would last the life of any field, possibly 50 or more years.

Minerals: Under the IMP, the area is not available for mineral leasing.

If released from wilderness study status, the area would be open to mineral leasing. There is a low probability of development, no expected impact.

Land Authorizations: Under the IMP, there are no new authorizations and no impact.

If released from wilderness study status, the area would be open to land authorizations. There is a low potential for environmental impact due to reclamation standards for rights-of-way and other land authorizations.

Alternative B - ACEC Designation (Preferred)

An environmental assessment would be done in the future to address the ACEC management plan if Congress releases Bitter Creek from wilderness study status. Under the ACEC designation, the impacts would be the same as under the IMP described in Alternative A.

MOUNTAIN PLOVER

Alternative A - Current Management

The area would not be designated an ACEC and would be managed consistent with the existing guidance from the Judith-Valley-Phillips RMP.

Land Treatments: Native vegetation would be maintained. No chemical spraying or other control methods for noxious weeds or insects occurs in the area presently and none is anticipated. No effect on mountain plovers would be expected. Controlling the location of the land treatments or applying mitigation measures would eliminate any potential effects to the preferred plover habitat.

Fire Management: Burning could be conducted to improve habitat. Any prescribed burning would be conducted during a time when there would be no effect on plovers.

Wildlife and Fisheries Management: No effect on mountain plovers would be expected, since priority would be given to mountain plover.

Recreation: There would be no affect to the current recreation patterns. Dispersed recreation opportunities exist with this area being used primarily for hunting and OHV travel. The primary season of use would remain September 1 through December 1. The benefits associated with the existing recreation opportunities is it boosts the local economy during the primary season of use.

The BLM land in this area would remain open to off-road motorized travel yearlong. Outside of hunting season, this area has a small amount of off-road travel. Considering this small amount of off-road travel on the hardpan area the potential disturbance impacts would be minor, due to the very short time needed to cross a piece of hardpan an incubating mountain plover would not be kept off a nest for too long of a time, but a nest could be run over. The likelihood for this to occur would be slight.

Grazing: Grazing of livestock would not have any effects on mountain plovers. Livestock would have a positive effect by grazing the vegetation to a shorter height. Construction of range improvements could have a small disturbance effect on plovers if constructed during the nesting period.

Energy Mineral Resources: With current management the BLM would protect the surface resource values on all lands leased for oil and gas with the standard stipulations and lease terms. The lease terms of delaying an activity 60 days or moving an activity 200 meters (656 feet) would lessen any potential impacts on mountain plovers, but not entirely eliminate all impacts. The nesting period is greater than 60 days and the hardpan areas are wider than 656 feet. The standard stipulation would be applied to the mountain plover habitat area and all other leased lands. The standard stipulation includes provisions for special areas, such as for mountain plover habitat. One special area listed is "1/4 mile from identified essential habitat of state and federal sensitive species." Any surface use or occupancy within such special areas will be strictly controlled, or if absolutely necessary, excluded. Use or occupancy will be restricted only when the BLM demonstrates the restriction necessary for the protection of such special areas and existing or planned uses. Identification of the essential habitat and the resulting restrictions would be furnished to the lessee after being advised of a specific proposed surface use or occupancy on the leased lands.

The standard stipulation also says the BLM is responsible for assuring that the leased land is examined prior to undertaking any surface-disturbing activities to determine effects upon any plant or animal species, listed or proposed for listing as endangered or threatened, or their habitats. The findings of this examination may result in some restrictions to the operator's plans or even disallow use and occupancy that would be in violations of the Endangered Species Act of 1973 by detrimentally affecting endangered or threatened species or their habitats. At the present time, the mountain plover is not listed as an endangered or threatened species, but has been proposed to be listed as a threatened species. The proposed rule is in the Federal Register dated February 16, 1999. If the mountain plover is not listed this part of the standard stipulation would not apply.

Under the draft Judith-Valley-Phillips Oil and Gas Supplemental RMP/EIS (BLM, 1998) the lease terms would still apply and a new stipulation would replace the standard stipulations. The hardpan area (the primary habitat area) would have a special timing stipulation. The stipulation is; Surface use is prohibited from April 1 to July 31 within 1/4 mile of occupied nesting habitat for mountain plovers. The time periods may be made less restrictive depending upon the actual on-the-ground conditions. This stipulation would eliminate potential impacts during the nesting period due to the drilling of any oil or gas well. This new stipulation does not apply to the operation and maintenance of production facilities.

Before geophysical exploration a notice would be given to the Glasgow Field Station, showing the location of the activity and access routes, anticipated surface disturbance, and time frames for operations. Before the activity is allowed to proceed the office ensures that the operator is bonded and than any necessary mitigation measures are conveyed to the operator. Considering the very short time needed to cross the hardpan area the potential impacts would be short term, but a nest could be run over or an incubating adult kept off a nest for too long of a time. The likelihood for this to occur would be slight.

Non-Energy Mineral Resources: All federal minerals are available for exploration and development. This area was once the bottom of an inland sea, which covered the area with sediments burying any rock layers deeply. The development of hardrock mining is not expected, so impacts to mountain plovers are not expected.

Bentonite: The BLM would allow exploration and development of bentonite resources while preventing unnecessary or undue degradation of non-mineral resources. The phrase unnecessary or undue degradation is defined as surface disturbance greater that what would normally result when an activity is being accomplished by a prudent operator in usual, customary, and proficient operation of similar character and taking into consideration the effects of operation on other resource and land uses, including those resources and uses outside the area of operations. An approved plan of operations would not be required for operations of less than five acres. Impacts to mountain plovers would occur if bentonite activities, such as topsoil removal and access road construction occurred during nesting either running over nests or causing nest abandonment. Habitat would be reduced slightly until reclamation.

Land Authorizations: Rights-of-way would be considered on a case-by-case basis with appropriate stipulations. No effect on plovers is expected with stipulations added to control time of use and the area needed.

Alternative B - ACEC Designation (Preferred)

The Mountain Plover area would be designated an ACEC and would be managed consistent with the guidance from the Judith-Valley-Phillips RMP as modified by the management prescriptions of this alternative. The consequences of this alternative would be the same as Alternative A except as explained below.

Land Treatments: No impacts to plovers are anticipated to occur, since controlling the location of the treatment or applying mitigation measures would eliminate any potential effects to the preferred plover habitat. No effect on mountain plovers would occur due to the restrictions on spraying or other control methods for noxious weeds or insects. The food source for the plovers would be unchanged without the use of insecticides.

Fire Management: Burning could be conducted to improve habitat. Any prescribed burning would be conducted during a time when there would be no negative effect on plovers. The area could not be used as a fire staging area April 1 - July 31.

Wildlife and Fisheries Management: No effect on mountain plovers would be expected, since priority would be given to mountain plover.

Recreation: OHV travel would be limited April 1 - July 31 in the designated area, there would be minimal affect since nearly all recreation use occurs during the hunting season (9/1 - 12/1). A watchable wildlife area could be established thereby offering a range of values to society as a whole, as well as specific economic benefits to the local community. ACEC designation for the mountain plover may attract visitors during months that typically are considered off season and can attract a wider-range of people with multiple interests to Valley County. Without off-road travel on the hardpan area the possibility of disturbance and nest destruction impacts would be eliminated. New roads would be designed to avoid the preferred plover habitat. Rerouting sections of existing roads would have a long term effect on plover habitat by reducing erosion on the hard pan.

Grazing: There would be no effect on grazing permittees or livestock by designating this an ACEC. The grazing of livestock would not have any negative effects on mountain plovers. Livestock would continue to have a positive effect by grazing the vegetation to a shorter height. Construction of range and wildlife improvements would not effect mountain plovers by building the improvements outside of the nesting period.

Energy Mineral Resources: With an ACEC designation the BLM would place additional restrictions on the lessee/operator's plans to eliminate possible effects on mountain plovers. Timing restrictions would be placed on geophysical exploration, drilling, and the operation and maintenance of production facilities. The stipulation would eliminate potential disturbance and nest destruction impacts during nesting season.

The operation of a well could effect mountain plovers, if an operation and maintenance activity occurred after egg incubation had been initiated on a nest close to a well site, access road, or production facilities and the nest was abandoned. The duration and extent of the operation and maintenance activity would determine how much disturbance it would proportionally create.

Non-Energy Mineral Resources: All federal minerals are available for exploration and development. This area was once the bottom of an inland sea, which covered the area with sediments burying any rock layers deeply. The development of hardrock mining is not expected, so impacts to mountain plovers are not expected.

Bentonite: The BLM would allow the exploration and development of bentonite resources during times when the plovers are not nesting eliminating potential impacts. There could be a inconsequential amount of habitat that would be unusable while the pit is open. This would be short term and temporary since reclamation would be required to be initiated after excavation is competed, and the surface area of the pit would be controlled. An approved plan of operations would be required for all operations (except for casual use). Seasonal restrictions would not impact bentonite mining operations significantly since most of the claims area outside the ACEC area so operations could be planned to run continuously.

Land Authorizations: No effect on plovers is expected with stipulations added to control time of use and the area needed for ROW grants.

CHAPTER 5
CONSULTATION AND COORDINATION

Consultation and coordination has been an important part of this ACEC resource management plan amendment. An open house, informational letter, contacts with other governmental agencies, and the public were used to gather input for this plan amendment. This input helped define what issues needed to be addressed and what issues were previously resolved with current management guidelines. Coordination and consultation will continue throughout the review of this draft and preparation of the final amendment/EA.

The BLM invites the public to comment on the draft amendment/EA. A notice of availability for the draft amendment/EA will be published in the Federal Register and in local newspapers.

PUBLIC INVOLVEMENT

A Notice of Intent, formally announcing the beginning of the planning process, was published in the Federal Register on April 17, 1998. The public has been informed of and involved in the planning process through the Federal Register Notice, news release, direct mailing, and an open house.

Public participation activities are listed chronologically in Table 5.1. Complete records of public comments and involvement are on file in the Glasgow Field Station, Glasgow, Montana.

TABLE 5.1
PUBLIC INVOLVEMENT

Date	Action
April 17, 1998	Notice of Intent to prepare an amendment/EA for the Bitter Creek and Mountain Plover potential ACECs.
June 23, 1998	A letter was sent to a mailing list of interested parties, agencies, organizations, and individuals.
June 23, 1998	A news release was issued about the two potential ACECs and an open house.
July 21, 1998	An open house to identify issues was held in Glasgow.

CONSISTENCY

The BLM's planning regulations require that resource management plans be "consistent with officially approved or adopted resource related plans of other federal agencies, state, and local governments, and Indian tribes, so long as the guidance and resource management plans are also consistent with the purposes, policies, and programs of federal law, and regulations applicable to public lands...".

All Federal, state, local, and tribal councils are requested to review this document for inconsistencies with their plans and inform the BLM of any inconsistencies.

DISTRIBUTION LIST

County Commissioners

Phillips County Commissioners
Valley County Commissioners

State

Department of Fish, Wildlife and Parks
Department of Natural Resources and Conservation
Governor's Office

Congressional

Honorable Max Baucus
Honorable Conrad Burns
Honorable Rick Hill

Federal

Fish and Wildlife Service
USGS Biological Resource Division

Tribal Councils and Committees

Fort Belknap Community Council
Fort Belknap Reservation
Fort Peck Tribal Water
Fort Peck Tribes

Organizations

Badlands Cooperative State Grazing District
Buggy Creek Cooperative State Grazing District
Central Montana Wildlands Association
Glasgow City/County Library
Institute for Policy Research
Montana Association of State Grazing Districts
Montana Audubon
Montana Public Lands Council
Montana Wilderness Association
National Wildlife Federation
Public Lands Council
Sierra Club
Silver Dollar Grazing Association
The Nature Conservancy of Montana
The Wilderness Society
Valley County Sportsman
Wittmayer Grazing Association
Wildlife Management Institution
Yellowstone Valley Audubon Society

Businesses

Billings Gazette
Boucher Ranch, Inc.
Core Home Corporation
Engstrom Ranch, Inc.
Fauna West Wildlife Consultants
First Community Bank
Glasgow Courier
Great Falls Tribune
Judith River Farm
KLTZ/KLAN Radio
Luther Appraisal Services
McIntyre Ranch, Inc.
Williston Basin Interstate Pipeline

The draft amendment/EA was also mailed to an additional 40 individuals.

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APPENDIX A
AREA OF CRITICAL ENVIRONMENTAL CONCERN

INTRODUCTION

This appendix provides an assessment of the areas nominated for area of critical environmental concern (ACEC) designation; Mixed Grass Prairie and Mountain Plover.

EVALUATION PROCESS

In order to be designated an ACEC, an area must meet both the relevance and importance criteria as defined in 43 CFR 1610.7-2.

Relevance. An area meets the relevance criteria if it contains one or more of the following.

1. Significant historic, cultural or scenic values including rare or sensitive archaeological resources and religious or cultural resources important to the Native Americans.

2. Fish and wildlife resources including habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity.

3. Natural process or systems including endangered, sensitive, or threatened, plant species; rare, endemic or relic plants or plant communities which are terrestrial, aquatic, or riparian, or rare geologic features.

4. Natural hazards including avalanche, dangerous folding, landslides, unstable soils, seismic activity, or dangerous cliffs.

Importance. The value, resource, system, process, or hazard described above must have substantial significance and values characterized by one or more of the following.

1. More than locally significant qualities.

2. Quality of circumstances that make it fragile, sensitive, rare, irreplaceable, unique, endangered, threatened, or vulnerable to adverse change.

3. Recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of the Federal Land Policy and Management Act.

4. Qualities which warrant highlighting to satisfy public or management concerns about safety and public welfare.

5. Poses a significant threat to human life or safety or to property.

An interdisciplinary team evaluated each area to determine if it met both the relevance and importance criteria. Evidence of relevance and importance may be gathered from BLM and other sources.

If an area does not meet the criteria, or special management attention is not needed, analysis supporting the conclusion is incorporated into the amendment and the area is not considered a potential ACEC.

MIXED GRASS PRAIRIE (BITTER CREEK): Nominated for its natural integrity, scenic values, vegetation and on the basis that it is one of the largest and most intact sections of prairie remaining in the United States and coupled with the Canadian Grasslands National Park, would provide an intact prairie corridor between the United States and Canada. This nomination encompasses approximately 350,000 acres of public land in north Valley County.

Relevance Criteria: The entire nomination area was found to meet the relevance criteria for scenic and cultural values and wildlife resources. The area contains outstanding scenic views which are not compromised by visual intrusions or social imprints. The area is known to contain sensitive archaeological resources. The area is valuable for wildlife due to the relatively large, continuous, and contiguous amount of prairie under federal administration which provides a reservoir of grassland habitat. Two areas consisting of approximately 100,000 acres of public land each, meet the criteria for natural process or systems. These two areas are primarily in an undisturbed condition and are representative of the natural system and process. The nomination does not meet the relevance criteria for natural hazards.

Importance Criteria: The nomination area is not considered to have more than locally important qualities giving it special worth, consequence, meaning or distinctiveness. Similar resources can be found in other areas under federal administrative; therefore, the relevant resources in the nomination area do not possess qualities or values which are nay more important than comparable resources in other areas. Only the Bitter Creek WSA (59,660 acres) was found to meet the importance criteria due to the scenic diversity and variety of vegetation types and wildlife habitat.

Summary: The Bitter Creek WSA does qualify for further consideration as an ACEC.

MOUNTAIN PLOVER: Nominated for the mountain plover habitat values.

Relevance Criteria: This area meets Criteria 2. The area provides habitat for the mountain plover and is not associated with black-tailed prairie dogs. This is the natural habitat of the plover and not biologically created by prairie dogs. The plover is a species of special concern to the Montana Department of Fish, Wildlife and Parks, is a category 1 species under the Endangered Species Act and is being considered for listing by the U.S. Fish and Wildlife Service. This is one of the three documented breeding sites in Montana and may represent the second major population in the State. Knowles, 1991, has reviewed the record of mountain plover sightings in this area and has found 123 observations of 314 birds since 1978.

Importance Criteria: The area meets Criteria 1 and 3. This habitat is important to the plover and needs to be maintained. The area is unique because it contains natural habitat for the mountain plover. It is one of the last areas of native plover habitat in the United States. It is more than locally significant tot he survival of the plover. The area would qualify under Sec. 102.(a)(8) of FLPMA as an area to be managed that will protect the quality of scientific values and provide food and habitat for fish and wildlife.

Summary: This nomination qualifies for further consideration as an ACEC.

APPENDIX B
MOUNTAIN PLOVER OIL AND GAS STIPULATION FOR ALTERNATIVE A

TIMING

Resource: Wildlife - Mountain Plover.

Stipulation: Surface use is prohibited from April 1 to July 31 within 1/4 mile of occupied nesting habitat for mountain plovers. This stipulation does not apply to the operation and maintenance of production facilities.

Objective: To protect the habitat of the mountain plover, a candidate species identified by the USFWS.

Exception: An exception may be granted by the authorized officer if the operator submits a plan which demonstrates that the proposed action will not affect the mountain plover or its habitat. If the authorized officer determines that the action may or will have an adverse effect, the operator may submit a plan demonstrating that the impacts can be adequately mitigated.

Modification: The boundaries of the stipulated area may be modified if the authorized officer determines that portions of the area are no longer critical to the mountain plover.

Waiver: The stipulation may be waived if the authorized officer determines that the portion of the lease under the restriction is no longer occupied by the species for nesting habitat.

APPENDIX C
MOUNTAIN PLOVER OIL AND GAS STIPULATION FOR ALTERNATIVE B

TIMING

Resource: Mountain Plover ACEC

Stipulation: Surface use is prohibited from April 1 to July 31, except for routine operation and production activities of short duration. The construction of surface production facilities inside the ACEC boundaries would not be permitted.

Objective: To protect the habitat of the mountain plover within the Mountain Plover ACEC. The mountain plover is a candidate species identified by the USFWS. This stipulation would reduce the disturbance to mountain plovers during breeding season.

Exception: Emergency projects are excepted. An exception may also be granted by the authorized officer for special projects during the period April 1 to July 31. For special projects, the operator must submit a plan, including an inventory of occupied mountain plover nesting habitat, which demonstrates that the proposed action will not affect the mountain plover or its habitat.

Modification: None.

Waiver: The stipulation may be waived if the authorized officer determines that the portion of the lease under the restriction is not located in the primary habitat and if the surface production facilities will not adversely affect the mountain plover or its habitat.

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